

**AMENDMENTS TO THE DRAWINGS**

The attached drawing sheet includes changes to Figure 1. This figure has been amended to recite that Figure 1 is the sequence identified in the Specification and sequence listing as "SEQ ID NO. 1."

Attachments: Replacement Sheet (1)  
Annotated Sheet (1)

### **REMARKS**

Claims 35-45 are pending in the instant Application and have been examined on their merits. Claims 1-34 have been previously canceled. In response to the Office Action mailed on June 27, 2007, Applicants submit this Amendment. This Amendment amends claims 35-43 and Fig. 1. Claims 44 and 45 have been amended by virtue of their dependencies on amended claims. No new matter has been added by these amendments. In view of this Amendment and the remarks submitted below, Applicants respectfully request that the objections and rejections asserted in the Office Action be reconsidered and withdrawn, and that a Notice of Allowance be issued directed to all pending claims.

The Office Action asserts several grounds for objecting to the Application and rejecting the claims. The objections and rejections include: an objection to the drawing; a rejection under 35 U.S.C § 101, rejections under 35 U.S.C § 112, second paragraph; and a rejection under 35 U.S.C § 103.

#### **Objection to the Drawings**

The Office Action asserts an objection to Figure 1. Applicants have amended Figure 1 to further recite that Figure 1 is the sequence identified in the Specification and sequence listing as "SEQ ID NO. 1." Accordingly, Applicants respectfully request that this objection be withdrawn.

#### **Rejections under 35 U.S.C. § 101**

Claims 43-45 have been rejected under 35 U.S.C. § 101 as purportedly reciting non-statutory subject matter. Applicants have adopted the Examiner's suggestion and amended claim 43, and claims 44 and 45 *vis-à-vis* the amendment to claim 43, to recite "wherein the seeds comprise the polynucleotide sequence." Accordingly, Applicants respectfully request that this rejection be withdrawn.

#### **Rejection under 35 U.S.C. § 112, Second Paragraph, Indefiniteness**

Claims 35-45 have been rejected under 35 U.S.C. § 112, second paragraph, as purportedly being indefinite for failing to particularly point-out and distinctly claim the subject matter that Applicants regard as the invention. Particularly, the Office Action asserts that claim 35 is missing an essential step – expressing the polynucleotide sequence of SEQ ID NO:1.

Applicants have amended claim 35, and thus have amended claims 36-45, which depend from claim 35, to recite "... expressing the polynucleotide sequence or the variant thereof ...." Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 37-42 have been rejected under 35 U.S.C. § 112, second paragraph, as purportedly being indefinite in their recitation of "increased." Applicants have adopted the Examiner's suggestion and amended claims 37-42 to recite "... relative to an untransformed plant of the same plant species." Accordingly, Applicants respectfully request that this rejection be withdrawn.

### **Rejection under 35 U.S.C. § 103**

Claims 35-45 have been rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Mukhopadhyay *et al.* (NCBI/EMBL Database, Sequence Accession No. AF140722, June 7, 2000) in view of Hiei *et al.* (The Plant Journal (1994), 6:271-282) in further view of Liu *et al.* (Eur. J. Biochem. (1999), 262:247-257). Applicants respectfully traverse this rejection because the combination of the cited references is improper since (1) Mukhopadhyay does not teach or suggest that Mukhopadhyay's disclosed gene is a transcription factor, and (2) Liu does not teach or suggest that AN1/A20 type zinc-finger proteins are involved in stress tolerance.

A rejection under Section 103 must be supported by some reason for a skilled artisan to combine the elements in the same manner as the applicant. *KSR Int'l v. Teleflex*, 82 U.S.P.Q.2d 1385, 1397 (U.S. 2007). The reason or motivation cited cannot be based on hindsight. MPEP § 2145.

In this case, there is no motivation to combine Mukhopadhyay with Liu. Mukhopadhyay only discloses a gene, and makes no mention that the gene is a transcription factor. It only discloses that the gene is "a novel pathogenesis-related protein gene (OSPR) from rice." One skilled in the art would not necessarily recognize that a novel pathogenesis-related gene is a transcription factor because not all stress-tolerance related genes are transcription factors. Therefore, one skilled in the art would see no reason to combine Liu, which is directed to transcription factor genes used for manipulating plants, with Mukhopadhyay because one skilled in the art would not recognize that Mukhopadhyay is a transcription factor gene.

In additional, Liu does not teach or suggest that an AN1/A20 type zinc-finger gene would be involved in stress tolerance. Not all zinc-finger proteins are transcription factors, nor are all zinc-finger genes related to stress tolerance. In fact, the claimed invention is the first AN1/A20 type zinc-finger gene linked to stress tolerance. In contrast, Liu describes five classes of zinc-finger transcription factors, none of which are AN1/A20 type zinc finger proteins.

In light of the array of transcription factor genes and other genes that are involved in stress tolerance, the claimed invention is patentable over the cited references because it is the first to identify the specific SAP1 (AN1 and A20 type) zinc-finger gene that is involved in stress tolerance.

### CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that all pending claims in the instant application are patentable over the cited references and are in condition for allowance. Accordingly, reconsideration and withdrawal of the rejections and objections, and a Notice of Allowance are respectfully requested.

Should the Examiner have any questions or concerns, the Examiner is invited to contact Applicants undersigned attorney by telephone at 412-471-8815.

Respectfully submitted,

THE WEBB LAW FIRM

By 

William H. Logsdon  
Registration No. 22,132  
Attorney for Applicants  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, Pennsylvania 15219  
Telephone: 412-471-8815  
Facsimile: 412-471-4094  
E-mail: webblaw@webblaw.com



WO 2004/058963

1/9

PCT/IN2003/000397

*SEQ ID No. 1*

```
gatctctcct geaatcctca tcacacagca aaacccaaacc gcgagcggaa tcctcagcct
gctgagagag cctgagacca agaggggggat tcttttttgg ttattgacga tggcgacgcg
cgacaagaag gatcaggagc cgaaggagct cagggcgccg gagatcacgc tgtgcgccaa
cagctgcgga ttcccgggca acccgcccaac gcagaacctc tgccagaact gctctttggc
ggccacggcg tccacctcgt cgcgctcttc ttgtcgtca ccggtgctcg acaagcagcc
gcccagggcg gcggcgccgc tgggtgagcc tcaggctcct ctcccaccgc ctgtggagga
gatggcctcc gcgctcgcca cggcgccggc gccggtcgcc aagacgtcgg cgggtgaaccg
gtgctccagg tgccgggaagc gtgctggcct caccgggttc cggtgccggg gcggccaact
gttctcgccg gaacaccggg actccgacgc ccaaggctgc agctacgact acaagtcggc
ggcaagggac gccatcgcca gggacaaccc ggtggtgcgc gcggccaaga tcgttaggtt
ctgagaggca aacaaaatta aaaaaaaaaa ctactgtttt agcaagaagt ggagaaaaaa
attgggaatt gaagggtgtg atgttattat tatgctgttc tcttctcgca attgttttct
cctttttatt ctttttaatt gcaaacggga ggataagtgg tggaaaagga atagtgtaac
aataatggtg atgtgagggt gttgagggaa aaagaatcga agaacaaaaa aaaaaaaaaa
aaaa
```

Figure 1